Claim Amendments:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of continuously coating at least one substrate with a buffer layer as a support for a ceramic superconducting material comprising loading the at least one substrate having a width and opposite major surfaces onto a respective feed spool, feeding the at least one substrate across a substrate block within a deposition zone in a vacuum deposition chamber wherein a coating generated from a single deposition source is applied to the at least one substrate while the at least one substrate is bombarded by ions from a dual RF-ion source along the deposition zone, forming at least one coated substrate within the deposition zone, and reloading the at least one coated substrate onto a respective take-up spool, wherein the dual RF-ion source includes first and second RF-ion sources bi-laterally oriented with respect to the at least one substrate and on the same side of the substrate, the first and second RF-ion sources extending along a plane normal to the longitudinal axis of the at least one substrate so as to be aimed at respective first and second portions of the same major surface of the at least one substrate and bombard the respective first and second portions of the same major surface of the at least one substrate, wherein the first portion and the second portion each span one-half the width of the substrate such that the first and second portions span an entirety of the width of the substrate and wherein a separator is disposed within the deposition chamber and between the bilaterally oriented dual RF-ion sources, the separator being oriented along a direction that longitudinally bisects the substrate block and functioning to barricade impingement of ions from the first RF-ion source on the second portion and barricade impingement of ions from the second RF-ion source on the first portion.

2. (Previously Presented) The method of claim 1 where the respective feed spool and take-up spools are located external to the deposition chamber.

3. (Previously Presented) The method of claim 1 where the at least one substrate is inter-spooled with kapton polymer protective tapes.

4. (Previously Presented) The method of claim 1 where the coating is generated from a deposition source, the deposition source is an electron beam evaporator.

5. (Original) The method of claim 1 where from about 2 to about 12 substrates are simultaneously being coated.

6. (Original) The method of claim 1 where at least two substrates are simultaneously being coated.

7. (Currently Amended) A method of continuously coating at least one substrate with a buffer layer as a support for a ceramic superconducting material comprising:

providing at least one substrate feed spool of substrate, the substrate having a width and opposite major surfaces,

unspooling and threading the at least one substrate through a vacuum deposition chamber,

loading coating material that is to be deposited onto a surface of the at least one substrate into the vacuum deposition chamber,

reducing the pressure in the deposition chamber to no greater than about 10^{-5} Torr,

injecting oxygen into the deposition chamber,

initializing dual RF-ion sources located in the deposition chamber to a pre-determined power level and trajectory where the resulting ion beams are directed toward the at least one substrate tape translating through a deposition zone in the deposition chamber, wherein the dual RF-ion source includes first and second RF-ion sources bi-

laterally oriented with respect to the at least one substrate and on the same side of the substrate, the first and second RF-ion sources extending along a plane normal to the longitudinal axis of the at least one substrate so as to be aimed at respective first and second portions of the same major surface of the at least one substrate and bombard the respective first and second portions of the same major surface of the at least one substrate, <u>wherein the first portion and the second portion each span one-half the width of the substrate such that the first and second portions span an entirety of the width of the substrate</u> and wherein a separator is disposed between the bilaterally oriented dual RF-ion sources, the separator being oriented along a direction that longitudinally bisects a substrate block and functioning to barricade impingement of ions from the first RF-ion source on the second portion and barricade impingement of ions from the second RF-ion source on the first portion,

eroding the coating material by bombarding the coating material with electrons or ions produced by an energy source selected from the group consisting of DC electron beam, magnetron and ion beam energy sources,

feeding the at least one substrate across the substrate block through a deposition zone in the vacuum chamber,

allowing the coating material eroded from the coating source to impinge upon a surface of the at least one substrate for a period of time sufficient to deposit a coating of evaporated coating material onto the tape forming at least one coated substrate, and

collecting the at least one coated substrate on a respective take-up spool.

8. (Previously Presented) The method of claim 7 wherein RF ion sources are arranged on opposite sides of the coating source in a manner such that the resulting ion

beams are directed toward the at least one substrate at incident angles of approximately 55 degrees.

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (New) A method of continuously coating at least one substrate with a buffer layer as a support for a ceramic superconducting material, comprising:

translating at least one substrate from a respective feed spool, through a deposition chamber, and onto a respective take-up spool, the deposition chamber having an internal volume defined by a plurality of walls, located within the internal volume are a substrate block having a width and a length, a single deposition source, a first and a second RF-ion sources, and a separator disposed between the first and the second RF-ion sources, the first and second RF-ion sources being bilaterally oriented with respect to the at least one substrate, the separator being oriented along a direction that bisects the substrate block along the length, wherein the at least one substrate provides multiple substrate portions translating across the substrate block;

depositing a coating generated from the single deposition source onto the multiple substrate portions while the multiple substrate portions are translating across the substrate block; and

bombarding a first portion of the multiple substrate portions within a first region of the substrate block with ions from the first RF-ion source and a second portion of the multiple substrate portions within a second region of the substrate block with ions from the second RF-ion source while depositing the coating on the multiple substrate portions translating across the substrate block, the ions from the first and second RF-ion sources, the separator functioning to barricade impingement of ions from the first RF-

ion source on the second portion and barricade impingement of the second RF-ion source on the first portion, wherein the first region and the second region each span one-half the width of the substrate block such that the first and second regions span an entirety of the width of the substrate block.

13. (New) The method of claim 12 where the respective feed spool and the respective take-up spool are located external to the deposition chamber.

14. (New) The method of claim 12 where the at least one substrate is inter-spooled with kapton polymer protective tapes.

15. (New) The method of claim 12 where the deposition source is an electron beam evaporator.

16. (New) The method of claim 12 where from about 2 to about 12 substrates are simultaneously being coated, each of the substrate portions provided by corresponding one of said about 2 to about 12 substrates.

17. (New) The method of claim 12 where at least 2 are simultaneously being coated.